Abstract of the disclosure

A switching power transmission device including: a first switch circuit and a second switch circuit, which are connected in series to input power; a series circuit having a primary winding of transformer which has a leakage inductor and a capacitor, one end of the series circuit being connected to a contact point between the first switch circuit and the second switch circuit, and another end being connected to the input power; and a rectifying-smoothing circuit having a rectifying diode, connected to a secondary winding of the transformer; the first switch circuit being a parallel-connected circuit having a first switching element, a first diode, and a first capacitor; the second switch circuit being a parallel-connected circuit having a second switching element, a second diode, and a second capacitor; the switching power transmission device controlling the output power by controlling the ON time of the first switching element so that, while the first switching element is ON, energy accumulates in the primary winding of the transformer and the capacitor, and, while the first switching element is OFF, output is obtained from the secondary winding; the transformer including a first drive winding, which generates a voltage substantially proportional to the primary winding voltage for turning the first switching element ON, and a second drive winding, which generates a voltage substantially proportional to the primary winding voltage for turning the second switching element ON; the first switch circuit having a current-detecting unit; the switching power transmission device also having a controller which turns OFF the first switching element after monitoring the current flow thereto; and self-excitedly oscillating using resonance between the capacitor, the leakage inductor, and the inductance of the primary winding of the transformer, via the first and second drive windings

of the transformer, and alternately turning the first and second switching elements ON and OFF.